

## Summary post

My initial post focused on two separate elements of networking security: cloud firewalls and Wireguard VPN. These are relatively modern equivalents of traditional VPNs and firewalls that are being gradually utilised by IT professionals and companies.

I agree with the following comments from Osarodion and Ali on the benefits of Wireguard VPN. Indeed, Wireguard VPN is open source, user-friendly, advanced cryptography; high performance, and easily compiled. Ali and Osarodian mentioned other advantages of Wireguard VPN such as professionals can detect its vulnerabilities easily, it is cross-platform, and minimum bandwidth usage (2022).

Andrijana highlighted certain issues with Wireguard VPN. Although it has many excellent benefits, certain issues are lack of privacy and static IP addresses (2022). Phan Hai et al notes that Wireguard used fewer encryptions and authentications meaning the user's metadata could be exposed as well as being logged on Wireguard's servers (2021).

There are benefits to using a Firewall as a service (FWaaS): easily scalable and maintained, no physical choke points, integrates with cloud infrastructure; multiple deployments are protected, cost effective, and malicious traffic is blocked. Despite these benefits, FWaaS has vulnerabilities such poor patching, lack of deep packet inspection, static IP addresses, and open connections. If poorly configured, FWaaS could suffer from DDoS attacks (Ahmed, 2022). However, these can be mitigated through secure configuration and with other firewall-related technologies as used by Amazon Web Services such as Advanced Shield, Network Firewall, and Application firewall (Amazon, 2021).

Nothing is totally secure or invincible; there will always be a trade-off somewhere. In the case of Wireguard VPN, its speed, open-source code, and user-friendliness make it a great VPN for confidentiality but not for privacy. Cloud firewalls seem to suffer from human errors such as poor patching and configuration; however, this can be improved through proper training and using other firewall technologies together.

## References

Ahmad, A (2021) Peer Response. Collaborative Learning Discussion 2 [online]. Available from: <https://www.my-course.co.uk/mod/hsuforum/discuss.php?d=290239> [Accessed 23 Jan. 2022].

Amazon (2021) Amazon Web Services (AWS) - Cloud Computing Services. Available from: <https://aws.amazon.com/> [Accessed 12 Dec. 2021].

Klacar, A (2021) Peer Response. Collaborative Learning Discussion 2 [online]. Available from: <https://www.my-course.co.uk/mod/hsuforum/discuss.php?d=290239> [Accessed 23 Jan. 2022].

Phan Hai, P.N., Nguyen Hong, H., Quoc, B.B. and Hoang, T. (2021) A Comparative Research on VPN Technologies on Operating System for Routers. Available from: <https://ieeexplore.ieee.org/document/9598334> [Accessed 11 Dec. 2021].

Tolofari, O.S (2021) Peer Response. Collaborative Learning Discussion 2 [online]. Available from: <https://www.my-course.co.uk/mod/hsuforum/discuss.php?d=290239> [Accessed 23 Jan. 2022].